



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,025	07/25/2003	G. Scott Stepenoff	779-P-2	3370

7590 02/08/2005

TOD R. NISSLE, P.C.
P.O. Box 55630
Phoenix, AZ 85078

EXAMINER


COLLINS, GIOVANNA M

ART UNIT	PAPER NUMBER
----------	--------------

3672

DATE MAILED: 02/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

 Office Action Summary	Application No. 10/628,025	Applicant(s) STEPENOFF ET AL.	
	Examiner Giovanna M. Collins	Art Unit 3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "19" has been used to designate both drill bit and rotating shaft. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities:

On page 7, line 16, "prcoessed" should be changed to - - processed - -.

On page 8, lines 2-3 the phrase "Disks 26 and 27" should be changed to - - Disks 26 and 20 - -.

Appropriate correction is required.

Claim Objections

3. Claim 1 objected to because of the following informalities: In line 16 of claim 1, "sid" should be changed to - -side - -. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by de boer (2003/0217866).

De Boer discloses (see Fig. 10) a method for drilling for petroleum, comprising the steps of (a) erecting a derrick assembly (at 10) on the ground; (b) mounting a drill (90) on said derrick assembly, said drill including a hollow drill pipe (60) having an upper end and a lower end and a drill bit attached to the lower end; (c) mounting a rotary assembly at said derrick assembly to provide motive power to rotate said drill bit in the ground to produce drill bit cuttings; (d) mounting a drilling mud circulation system (fig. 7) at said derrick assembly to direct drilling mud into said upper end of said drill pipe; down through said drill pipe, out the lower end of said drill pipe, and up through a hole in the ground to produce auxiliary drilling mud containing drill bit cuttings; (e) providing a source of drilling mud for said circulation system, said mud comprising water and at least one additive selected from the group consisting

Art Unit: 3672

clay and auxiliary chemical additives to facilitate drilling (paragraph 0070); (f) erecting a first particle separation apparatus (see Fig. 9, at 500) including (i) a wall (510) defining a separation chamber, (ii) a feed orifice (above element 550) formed in said chamber, (iii) a rotary distributor (540) in said chamber provided with rotating distribution disk system including an upper surface, (iv) a system for rotatably driving said rotary distributor (paragraph 0074), (v) an outlet (at 513) formed in said wall, (vi) an open toroidal-shaped particle circulation space (at 520) intermediate said disk system and said outlet and circumscribed by a portion of said wall, said outlet opening into said toroidal-shaped space, (vii) a charging system (at 550) for charging auxiliary drilling mud through said orifice into said separation chamber toward said rotary distributor such that the auxiliary drilling mud, in part, impinges said upper surface, said rotary distributor providing the motive power to move at least a portion of the auxiliary drilling mud outwardly over said upper surface and into said chamber away from said rotary distributor, a first portion (530) of the auxiliary drilling mud over said upper surface and into said chamber in a primary continuous helical path of travel away from said rotary distributor and said orifice through said toroidal-shaped space toward and into said outlet (513), a second portion (520) of the auxiliary drilling mud in a secondary recirculating helical path of travel away from said rotary distributor and said orifice through said toroidal-shaped space toward said outlet and away from said outlet back toward said rotary distributor; (g) rotating said drill (90) into the ground with said rotary assembly to form said hole in the ground and produce drill bit cuttings in said hole, said hole having a top and a side; (h) circulating drilling mud with said mud circulation system along a path down into said upper end of said drill pipe, through said drill pipe, out said lower end of said drill pipe, up through said hole intermediate said drill pipe and said side of said hole, and out

Art Unit: 3672

through said top of said hole, to produce the auxiliary drilling mud containing drill bit cuttings (see Fig. 2); and, (i) transporting (see fig. 7) to said charging system auxiliary drilling mud, said charging system directing the cutting-containing drilling mud through said orifice into said separation chamber toward said rotary distributor such that the drilling mud, in part, impinges said upper surface.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Giovanna M. Collins whose telephone number is 703-306-5707. The examiner can normally be reached on 6:30-3 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on 703-308-2151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


gmc


David Bagnell
Supervisory Patent Examiner
Technology Center 3670